



# Unit 1 - How to access the portal

## Course outline

### How to access the portal

- Lesson 1: How to access the home page?
- Lesson 2: How to access the course page?
- Lesson 3: How to access the MCQ, MSQ and Programming assignments?
- Quiz : Assignment 0

## Assignment 0

Due date for this assignment: 2018-08-06, 23:59 IST.

### Submitted assignment (Submitted on 2018-06-30, 16:28 )

1) What is the maximum number that can be represented in 8-bit unsigned binary? **1 point**

- ☐ 127
- ☐ 128
- ☒ 255
- ☐ 256

**Yes, the answer is correct.**

**Score: 1**

**Accepted Answers:**

255

2) What is the smallest negative number that can be represented in 8-bit 2's complement binary? **1 point**

- ☐ -127
- ☒ -128
- ☐ -255
- ☐ -256

**Yes, the answer is correct.**

**Score: 1**

**Accepted Answers:**

-128

3) What is meant by synthesis? **1 point**

- ☒ To generate a circuit from a given specification.
- ☐ To verify the correct operation of a circuit.
- ☐ To verify whether the specification is correct.
- ☐ None of these.

**Yes, the answer is correct.**

**Score: 1**

**Accepted Answers:**

To generate a circuit from a given specification.

4) What are the advantages of FPGA-based design over ASIC design? **1 point**

- ☐ It is faster.
- ☒ It is more flexible.

- ☒ It has lower design cost.  
☐ None of these.

**Yes, the answer is correct.**

**Score: 1**

**Accepted Answers:**

*It is more flexible.*

*It has lower design cost.*

5) Why are CAD tools essential in modern day designs?

**1 point**

- ☒ They can handle large designs.  
☐ They generate better quality circuits.  
☐ They are available for free to the designers.  
☐ None of these.

**Yes, the answer is correct.**

**Score: 1**

**Accepted Answers:**

*They can handle large designs.*

6) The output of a 4-input AND gate will be 1 if

**1 point**

- ☐ At least one of the inputs is at 0.  
☐ At least one of the inputs is at 1.  
☐ All the inputs are at 0.  
☒ All the inputs are at 1.

**Yes, the answer is correct.**

**Score: 1**

**Accepted Answers:**

*All the inputs are at 1.*

7) The output of a 4-input NOR gate will be 1 if

**1 point**

- ☐ At least one of the inputs is at 0.  
☐ At least one of the inputs is at 1.  
☒ All the inputs are at 0.  
☐ All the inputs are at 1.

**Yes, the answer is correct.**

**Score: 1**

**Accepted Answers:**

*All the inputs are at 0.*

8) For a full adder circuit with inputs A, B and C, the carry output is given by

**1 point**

- ☐ A.B.C  
☒  $A.B + B.C + C.A$   
☐  $A.B.C' + A.B'.C + A.B.C' + A.B.C$   
☐ None of these

**Yes, the answer is correct.**

**Score: 1**

**Accepted Answers:**

*$A.B + B.C + C.A$*

9) How many select lines are there in a 16-to-1 multiplexer?

**1 point**

- ☐ 2  
☐ 3  
☒ 4  
☐ 5

**Yes, the answer is correct.**

**Score: 1**

**Accepted Answers:**

4

10) What is a tristate output state?

**1 point**

- ☐ When the voltage is somewhere in between logic 0 and logic 1.
- ☒ When the output line is electrically isolated.
- ☐ The third state in ternary logic system.
- ☐ None of these.

**Yes, the answer is correct.**

**Score: 1**

**Accepted Answers:**

*When the output line is electrically isolated.*

You were allowed to submit this assignment only once.

**Rate this lesson:**

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